

Pest Update (May 11, 2011)

Vol. 9, no. 12

John Ball, Forest Health Specialist, Extension Forester

Email: john.ball@sdstate.edu

Phone: 605-688-4737

Samples sent to: John Ball
Horticulture, Forestry, Landscape and Parks
Rm 201, Northern Plains Biostress Lab
North Campus Lane
South Dakota State University
Brookings, SD 57007-0996

Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent in from any location – please provide a picture!**

Available on the net at:

<http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx>

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any product identified in this publication.

In this issue	pg
Plant development.....	2
Current Concerns and tasks to complete	
Emerald Ash Borer Update.....	2
Zimmerman pine moth control.....	2
Clearwing ash borer control.....	3
Tasks to wait for a couple of weeks	
Codling moth control on apples.....	3
E-samples	
Purple needles on spruce.....	4
Browning pines.....	4
Aphids on pine.....	5
Samples received	
Lake County (declining spruce).....	5
Lincoln County (dothistroma needle blight).....	5
McPherson County (spider mites).....	5
Sully County (spider mites and twig blight).....	6



Plant development

Serviceberries and crabapples are now in full bloom in Brookings and the oaks are just breaking bud. We are still a couple of weeks behind in normal plant development and this is going to delay a number of treatment times.

Current Concerns

Emerald Ash Borer Update



In the last couple of weeks new infestations of the emerald ash borer have been detected in south Minneapolis. The insect was first discovered in the Twin Cities about two years ago and since that time new pockets of infested trees have appeared. This year 78 infested ashes were found in Prospect Park, last year they found 4 there, a good indication of how quickly infestations can expand or be detected. This is the closest infestation to South Dakota, but still several

hundred miles away, so there is no need to begin a preventative spray program in our state just yet. The recommendation is begin treatments when the insect is found in the adjacent county or within 15 miles.

What we do need to do now is continue to be on the lookout of ash trees exhibiting common symptoms of emerald ash borer attack – split bark, woodpecker damage, epicormic shoots, and canopy dieback – and further investigate trees with these symptoms. South Dakota will be conducting First Detector workshops across the state again this year to train people on identification of emerald ash borer, thousands canker disease and several other exotic pests. Details will be in a future Update.

Tasks to complete now



Zimmerman pine moth larvae will become active soon and begin burrowing into the wood. Infested trees typically have masses (appear as big globs of bubble gum) of reddish pitch near branch attachments. Treating the bark on the tree with an insecticide containing permethrin as the active ingredient is the most effective means of control. The chemical must be applied to the bark on the trunk so it is critical to make use the pressure of the sprayer is sufficient to penetrate the canopy.



Clearwing ash borer treatment with an insecticide containing permethrin as an active ingredient can begin in a couple of weeks. The adults are usually out flying about a week or so after Vanhouttee spireas begin to bloom, probably at least a week or two away. You know when the adults are flying out from an infested tree by the papery pupal skins and sawdust left in or around the emergent hole.



Spruce spider mites become active now as silver maple leaves are expanding – now across much of the state. Spruce spider mites are cool season mites meaning they are active in the spring and fall, not during the summer heat. The mites will go dormant once the temperatures consistently reach into the mid 80's. While the mites will begin feeding soon, the damage to the needles, bronzing and browning, does not typically show up until summer just as the mite populations begin to decline. Treatment options are very limited for

homeowners, horticultural oils and insecticidal soaps being the two most common. These are really suppression treatments, not eradication, and the webbing often prevents these pesticides, particularly the soap, from penetrating. They should be applied now and then another treatment next week, about 7 to 10 days after the first treatment to kill the mites as they hatch from eggs. Be aware of the cautions to the use of these products, particularly for blue spruce, as applications of oils or soaps can result in the loss of blue or silvery color to the foliage. You can make a *blue* spruce, a *green* spruce, very quickly, so read and follow label directions very carefully. The other common spray that homeowners can buy has the active ingredient acephate but this kills more insects than just mites and sometimes has limited effectiveness. Insecticides containing this active ingredient are also becoming difficult to find in our state, Ortho Systemic Insect Killer is the most common pesticide available that contains acephate and only a few distributors in the state have this product on their shelves. Acephate should also be applied in two treatments spaced 10 days apart. Homeowners with large spruce trees, or trees that are heavily infested should consider hiring a professional service. They have the equipment and chemical products that can truly provide some control of mites.

Tasks to do in couple of weeks...

Codling moth – the larvae of this insect burrow into the apple, usually near the base of the fruit, resulting in a trail through the apple filled with brown, powdery

frass. This frass often extrudes from the entry hole. Treatment is usually an application of malathion sprayed about 10 days after petal fall and then 3 more applications spaced about 10 days apart. Do not spray insecticides on apple trees while they are in bloom! You will kill the pollinators. If you are using a general fruit multi-purpose spray, it probably has an insecticide in it so these sprays should also not be applied during bloom.

E-samples



The purple people eater, actually the purple spruce eater, is showing up again across the state. I have received numerous samples, pictures and completed site visits involving spruce exhibiting discolored needles. While there are a number of possible causes for these symptoms, the most common, is not a pest but the site. Spruces, particularly Colorado blue spruce,

are not adapted to poorly-drained soil. The picture to the right shows blue spruce planted in a row that leads into a low area that has stayed wet for several years and still had standing water this past week. There is nothing that can be done to reverse this condition – aside from installing drain tile. Most tree owners are searching for a chemical solution to this problem and no amount of pesticide or fertilizer is going to help.



The calls keep coming in on browning pines, Austrian and ponderosa pines. Everyone is noticing the poor condition of the pines across the state. The typical symptoms are browning needles throughout the canopy, though the lower canopy is often more affected. There are several possible causes for these symptoms with the most common being winterburn. Brown needles, usually the entire needle is brown from the base to the tip, is often a symptom of winterburn. The other common source of browning needles (though usually the base of the needle remains green, but not always) this spring is dothistroma needle blight. This is an increasingly common disease of

Austrian and ponderosa pines across the state. This fungal disease is also known as 'red band' disease as the infected needles are often banded red with a yellow halo. Sometimes the tiny black fruiting structures can be seen pushing up through the red portion of the needle. While dothistroma needle blight is one of the most common needle diseases, it is also one of our most misdiagnosed problems. There can be other reasons for banding on the needles and it is usually best to confirm the presence of the disease before beginning a treatment program. If treatments are needed, the first is applied as the buds are swelling



I received this picture of aphids on a pine.

As you can see in the picture there are a number of ants hovering over and around the clusters of the smaller aphids. Aphids will suck the sap from the shoots and produce a sweet, sticky substance known as honeydew. The honeydew is prized by ants and these insects will "herd" aphids to protect them from predators so they can be "milked" for their honeydew.

Samples received

Lake County FL1100015
spruce?

What is wrong with these blue

The needle discoloration seen on this sample is what commonly occurs with spruce situated in poorly drained soils. There were no signs or symptoms on the sample that indicate an insect or disease is associated with the poor appearance of the tree. However, cytospora canker, a fungal disease that results in branch decline and dieback, may be a factor. The pictures attached showed individual branches dying in a pattern common with this disease, however the disease is secondary and usually some other factor is responsible for the decline. I will plan a visit to see the trees.

Lincoln County FL1100016

What is killing this Austrian pine?

The problem that could be identified from the sample is dothistroma needle blight. Most information on managing this disease can be found in the E-sample section of this Update.

McPherson County

What is causing the browning of needles on this tree? Water is running in a ditch about 5 to 10 feet away.

The tree has two problems. I was able to find a lot of spider mites on the sample and I am sure they are responsible for some of the symptoms, see the article in this Update on controls for spider mites. However, the other, and perhaps more serious problem, is the wet soils. Spruces are not well-adapted to wet soils and this may be the bigger problem of the two.

Sully County

What is wrong with this juniper?

I was able to find two problems on this common juniper. The plant was infested with spider mites (they do attack junipers as well as spruce) and also some twig blight. I doubt if these problems are responsible for the dead branches but they certainly would cause discoloration of the foliage.